

WHAT IS CLAIMED IS :

1. A process for fabricating ultrathin multilayer films, the process comprising the steps of :

5 introducing positive or negative charge or a material capable of hydrogen bonding to a substrate and placing the substrate on a spinner (pretreating step);

introducing a material (A) bindable with the material deposited onto the substrate, and spinning the substrate at 500 rpm to 30000 rpm for 4 to 200 seconds(first coating step);

10 dropping washing solvent onto the substrate after completion of the first coating and spinning the substrate at 500 rpm to 30000rpm for 4 to 200 sec to remove weakly-bound material (A) and form a thin film (A)(first washing step);

15 introducing another material (B) bindable with the material (A) coated onto the substrate and further coating it in the same condition as of the first coating(second coating step); and

20 dropping washing solvent onto the substrate after completion of the second coating and spinning the substrate at 500 rpm to 30000 rpm for 4 to 200 sec to remove weakly-bound material (B) and form a thin film (B) (second washing step); wherein the entire above steps are more than once repeated.

2. A process according to claim 1, wherein the respective first and second washing steps are repeated 0 to 3 times.

3. A process according to claim 1, wherein the introduction of a material (A) or (B) is carried out by dropping or spraying the material (A) or (B) while

the substrate is under spin.

4. A process according to claim 1, wherein the introduction of a material (A) is carried out by instantaneously immersing the substrate in a solution containing the material (A).

5 5. A process according to one of the claims 1 to 4, wherein the materials of layers can be bound to each other by the electrostatic ionic bonding, hydrogen bonding, ion-metal coordination or chemical bonding.

6. A process according to one of the claims 1 to 4, wherein the thickness of the respective thin films are controlled by solution concentration, addition of ionic salt, pH control, and spinning speed control.

10 7. A process according to claim 1, wherein two or more different organic layers are alternatively laminated, or organic layer and inorganic layer are alternatively laminated.

15 8. A process according to claim 1, wherein the spinning speed is 500 rpm to 30000 rpm and the spinning time is 4 to 200 sec for the first and second coating steps.

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